



First Named Inventor: Roger Lee Hipwell, Jr.

Application No.: 10/650,392

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AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 4, lines 16-17 with the following paragraph:

~~Figure 4 is~~ Figures 4A - 4C are a perspective view views of a portion of the microactuator showing in detail the bumper pads.

Please replace the paragraph at page 9, lines 22-28 with the following paragraph:

Figure 4 4A is a perspective view of a detail of the microactuator more clearly illustrating the seek bumpers 66. Figure 4 4A illustrates a portion of the rotor 48 and a portion of the stator 46, as well as a portion of the beams 50 which movably connect the rotor 48 to the stator 46. Located between the rotor 48 and stator 46 is the seek bumper 66, comprising first and second bumper pads 140, 142. The first bumper pad 140 is located on the rotor 48, while the second bumper pad 142 is located on the stator 46.

Please replace the paragraph at page 10, line 22 - page 11, line 6 with the following paragraphs:

In addition to forming the bumper pads 140, 142 of a metal or an epoxy, it may be possible to form the bumpers 66 of a material which utilizes electrostatic attractive forces to prevent repetitive physical contact between the bumpers 66 during seeks by electrostatically clamping the metal bumpers 66 until the seek is completed. In such an instance, electrical connections to the metal bumpers 66 would need to be added.

Further, as shown in Figure 4B, a fluid air bearing 144 between the rotor and stator bumpers 66 could be used to prevent or mitigate contact between the rotor 48 and the stator 46, such as using squeeze film dampers. Further yet, as shown in Figure 4C, repulsive magnet "virtual bumpers" 146, 148 that use repulsive magnetic forces to minimize or even eliminate the mechanical contact between the rotor 48 and stator 46 may be possible. Finally, though shown in Figures 4A-4C with

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bumper pads 140, 142 located on both the stator 46 and the rotor 48, the invention is not so limited.

The bumper 66 may be formed on the rotor 48, the stator 46, or both.